(c) The official level committee of Ministry of Finance on 1.5.2007 found the proposal to be in conformity of the VGF scheme and granted approval to GOAP to proceed with short-listing of bidders. GOAP has informed that the technical proposals submitted by the 5 pre-qualified international consortia companies are under evaluation.

(d) Since the project has not yet got the 'in-principle" approval of the Empowered Institution of the Ministry of Finance, it is too pre-mature to indicate the likely date for Government of India's approval of the proejct.

Stock of Titanium

† *120. SHRI RAJ MOHINDER SINGH MAJITHA: SHRI RAM JETHMALANI:

Will the PRIME MINISTER be pleased to state:

(a) whether it is a fact that the 'Titanium' available in the country has been recognized by Government as atomic metals;

(b) if so, the facts thereof;

(c) the annual production of this metal; and

(d) the amount of reserves of this metal estimated so for?

THE MINISTER OF STATE IN THE PRIME MINISTER'S OFFICE (SHRI PRITHVIRAJ CHAVAN): (a) and (b) No Sir, 'Titanium' is not recognized as 'Atomic Metal' by Government. However, Titanium bearing minerals and ores (ilmenite, rutile and leucoxene) are listed as 'Atomic Minerals' under entry No. 7 of Part 'B' of the First Schedule to the Mines and Minerals (Development and Regulations) Act, 1957.

(c) The total production of titanium bearing minerals during 2005-06 was 7,24,542 tonnes i.e. 7,04,243 tonnes of ilmenite and 20,299 tonnes of rutile. Presently no plant in India produces Titanium metal on commercial scale. However, a pilot plant of 3 ton per batch capacity exists at the Defence Metallurgical Research Laboratory (DMRL), Hyderabad.

(d) The Atomic Minerals Directorate for Exploration and Research (AMD) over a period of more than five decades carried out survey and exploration for inland riverine/teri and beach sand placer deposits. AMD has established 461.37 million tonne of ilmenite, 26.82 million tonne of rutile and 16.07 million tonne of leucoxene. The ilmenite resource contains about 210 million tonne of Titanium Dioxide ($Ti0_2$) and rutile resource contains about 20 million tonne of $Ti0_2$. Put together this contains approximately 138 million tonne of Titanium metal.

WRITTEN ANSWERS TO UNSTARRED QUESTIONS

Stock of Thorium

† 416. SHRI MANGANI LAL MANDAL: Will the PRIME MINISTER be pleased to state:

(a) whether it is a fact that there is an immense reserve of Thorium to fulfil the energy needs of the country, which can create adequate power base on nuclear technology;

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† Original notice of the question was received in Hindi.

(b) whether it is also a fact that the country is fully competent to build and manage atomic plant (FBR) based on Thorium as an alternative to the fuel of Uranium and the technique and technology related to it; and

(c) if so, details thereof?

THE MINISTER OF STATE IN THE PRIME MINISTERS OFFICE (SHRI PRITHVIRAJ CHAVAN): (a) Yes, Sir.

(b) and (c) Presently we have the capacity to build and operate Fast Breeder Reactors (FBR) based on Uranium-Plutonium fuel cycle. Fast Breeder Reactor is in operation at Indira Gandhi Centre for Atomic Research (IGCAR) at Kalpakkam since 1985. The 500 MWe Prototype Fast Breeder Reactor is under construction at Kalpakkam. Deployment of Thorium systems is envisaged only after sufficient installed capacity has been set up using fast reactors based on uranium-plutonium fuel. Comprehensive R& D for Thorium reactors and associated fuel cycle is being actively pursued.

Nuclear Power Programme

417. SHRIMATI SHOBHANA BHARTIA: Will the PRIME MINISTER be pleased to state:

(a) whether firm plans are under way to press ahead with India's indigenous nuclear power programme as India is facing uranium shortage;

(b) if so, the main programme that have been worked out to meet the uranium shortage in the country; and

(c) by when complete action plan is being considered to improve the nuclear power programme in the country?

THE MINISTER OF STATE IN THE PRIME MINISTERS OFFICE (SHRI PRITHVIRAJ CHAVAN): (a) Yes, Sir. The country has sufficient minable uranium resources to support a capacity of 10,000 MWe of Pressurized Heavy Water Reactors (PHWRs) in the first stage of nuclear power pgoramme. So far, PHWRs of 3800 MWe capacity have been set up and PHWRs of 660 MWe capacity are under construction. PHWRs of 5600 MWe capacity are planned to be set up in future along with the required Uranium production capacity. The second stage of the nuclear power programme will use fuel derived from the spent fuel of the first stage. The indigenous nuclear power programme is thus on course.

(b) The current mismatch between supply and demand of fuel is temporary. The Government has taken steps to segment supply of uranium by opening new mines and augmenting processing facilities. With the commencement of operations at the new uranium processing mill at Turamdih, availability of uranium is expected to improve progressively.

(c) Action plan for nuclear power programme is already in place.

Production of electricity

† 418. SHRI RAJ MOHINDER SINGH MAJITHA:
DR. MURLI MANOHAR JOSHI :

Will the PRIME MINISTER be pleased to state:

(a) whether Government are aware of the statement given by the Chairman of Nuclear Power

† Original notice of the question was received in Hindi.